

ABSTRACT OF THE DISCLOSURE

A method for measuring the presence or concentration of an analyte in a sample by spectrophotometry: providing an open top cuvette having a sample with an analyte to be measured; providing a light source and a detector for detecting emitted light; taking at least two measurements that includes: (i) directing at least two beams of light from the light source to different locations on the cuvette; (ii) passing the at least two beams through the cuvette at their respective locations and through the sample to be measured; and (iii) measuring at least two respective emitted light beams with the detector; and comparing the at least two emitted light beams to determine if: all the emitted light beams should be disregarded; one or more of the emitted light beams should be disregarded; or the sample absorbances should be averaged. In a preferred embodiment, the method includes taking at least three measurements. In another preferred embodiment, the spectrophotometry is absorption spectrophotometry, and the method is performed on a diagnostic analyzer.